

NAVY CASE NO. 83,317
JAMES DAVID McWHITE
SHIP STOWAGE AID ANALYSIS PROGRAM

What is claimed is:

1. A method for estimating stowage requirements in terms of storeroom area and stowage aids, said method comprising:

providing a database of extents of accommodativeness by rectangular storerooms with respect to at least one stowage aid type, wherein as to each said stowage aid type said database indicates variation in said extents of accommodativeness by at least two said rectangular storerooms having the same geometric area but different lengthwise-widthwise dimensions; and

based on said database, relating an amount of stowage aids to a storeroom area that is accommodative of said stowage aids.

2. The method of estimating according to claim 1, wherein said relating includes selecting a storeroom area and finding the maximal extent of said selected storeroom area that is accommodative of said stowage aids.

3. The method of estimating according to claim 2, wherein said relating includes finding a maximal amount of stowage aids usable in said maximal extent of said selected storeroom area that is accommodative of said stowage aids.

NAVY CASE NO. 83,317
JAMES DAVID McWHITE
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4. The method of estimating according to claim 1, wherein said relating includes selecting a storeroom area and finding a maximal amount of stowage aids usable in said selected storeroom area.
5. The method of estimating according to claim 4, wherein said relating includes selecting an amount of stowage aids and finding the minimal extent of storeroom area that is accommodative of said selected amount of stowage aids.
6. The method of estimating according to claim 1, wherein said relating includes:
 - obtaining a hypothetical total storeroom area required for stowage of items of interest; and
 - obtaining an actual total storeroom area required for stowage of said items, said actual total storeroom area being greater than said hypothetical total storeroom area, said obtaining an actual total floor area including associating at least one compartment utilization factor with said hypothetical total storeroom area, each said compartment utilization factor corresponding to a rectangular storeroom having a given geometric area and given lengthwise-widthwise dimensions.

NAVY CASE NO. 83,317
JAMES DAVID McWHITE
SHIP STOWAGE AID ANALYSIS PROGRAM

7. The method of estimating according to claim 6, wherein said obtaining a hypothetical total storeroom area includes dividing the total volume of said items by the height of a selected type of stowage aid.

8. The method of estimating according to claim 1, wherein said relating includes:

obtaining an initial quantity of items of interest for stowage;

obtaining an unqualified total storeroom area, said unqualified total storeroom area representing the total storeroom area that is hypothetically available for stowage of said items; and

obtaining a qualified total storeroom area, said unqualified total storeroom area being greater than said qualified total storeroom area, said qualified total storeroom area representing the total storeroom area that is practically available for stowage of said items, said obtaining a qualified total floor area including associating at least one compartment utilization factor with said unqualified total storeroom area, each said compartment utilization factor corresponding to a rectangular storeroom having a given geometric area and given lengthwise-widthwise dimensions.

9. A method for evaluating what is required for storing items, said method comprising determining at least one relationship between a total amount of said stowage aids and a total floor area required for accommodating said total amount of said stowage aids, said determining including using information as to the capabilities of differently sized compartments to

NAVY CASE NO. 83,317
JAMES DAVID McWHITE
SHIP STOWAGE AID ANALYSIS PROGRAM

accommodate stowage aids, each said compartment being characterized by an individual floor area and individual floor dimensions, said information including indication of different said capabilities in at least two said compartments that are characterized by the same said individual floor area but different said individual floor dimensions.

10. The method for evaluating of claim 9, wherein:

said total amount of said stowage aids is of said stowage aids of at least one selected type;

said information pertains to each of at least one type of said stowage aids;

each said compartment is characterized by a portion of said individual floor area that is unsuitable for situation thereupon of said stowage aids;

said different said capabilities are associated with the respective natures of the corresponding said portions; and

said unsuitability is associated with at least one of:

accessibility to said stowage aids in said compartment; and

functional clearance of said stowage aids in said compartment.

11. The method for evaluating of claim 9, wherein said determining includes estimating a total amount of said stowage aids of at least one selected type that can be accommodated by a predetermined total floor area.

NAVY CASE NO. 83,317
JAMES DAVID McWHITE
SHIP STOWAGE AID ANALYSIS PROGRAM

12. The method for evaluating of claim 11, wherein:

said information pertains to each of at least one type of said stowage aids;

each said compartment is characterized by a portion of said individual floor area that is unsuitable for situation thereupon of said stowage aids;

said different said capabilities are associated with the respective natures of the corresponding said portions; and

said unsuitability is associated with at least one of: accessibility to said stowage aids in said compartment; and functional clearance of said stowage aids in said compartment.

13. The method for evaluating of claim 9, wherein said determining includes estimating a total floor area required for accommodating a predetermined amount of said stowage aids of at least one selected type.

14. The method for evaluating of claim 13, wherein:

said information pertains to each of at least one type of said stowage aids;

each said compartment is characterized by a portion of said individual floor area that is unsuitable for situation thereupon of said stowage aids;

NAVY CASE NO. 83,317
JAMES DAVID McWHITE
SHIP STOWAGE AID ANALYSIS PROGRAM

said different said capabilities are associated with the respective natures of the corresponding said portions; and

said unsuitability is associated with at least one of: accessibility to said stowage aids in said compartment; and functional clearance of said stowage aids in said compartment.

15. A computer program product for residence in memory of a computer, said computer program product being for evaluating what is required for storing items, said computer program product comprising a computer useable medium having computer program logic recorded thereon, said computer program logic including:

means for enabling access to information as to the capabilities of differently sized compartments to accommodate stowage aids, each said compartment being characterized by an individual floor area and individual floor dimensions, said information including indication of different said capabilities in at least two said compartments that are characterized by the same said individual floor area but different said individual floor dimensions; and

means for enabling determination of at least one relationship between a total amount of said stowage aids and a total floor area accommodative of said total amount of said stowage aids.

16. The computer program product of claim 15, wherein:

said total amount of said stowage aids is of said stowage aids of at least one selected type;

said information pertains to each of at least one type of said stowage aids;

NAVY CASE NO. 83,317
JAMES DAVID McWHITE
SHIP STOWAGE AID ANALYSIS PROGRAM

each said compartment is characterized by a portion of said individual floor area that is unsuitable for situation thereupon of said stowage aids;

said different said capabilities are associated with the respective natures of the corresponding said portions; and

said unsuitability is associated with at least one of:

accessibility to said stowage aids in said compartment; and

functional clearance of said stowage aids in said compartment.

17. The computer program product of claim 15, wherein said determining includes estimating a total amount of said stowage aids of at least one selected type that can be accommodated by a predetermined total floor area.

18. The computer program product of claim 17, wherein:

said information pertains to each of at least one type of said stowage aids;

each said compartment is characterized by a portion of said individual floor area that is unsuitable for situation thereupon of said stowage aids;

said different said capabilities are associated with the respective natures of the corresponding said portions; and

NAVY CASE NO. 83,317
JAMES DAVID McWHITE
SHIP STOWAGE AID ANALYSIS PROGRAM

said unsuitability is associated with at least one of: accessibility to said stowage aids in said compartment; and functional clearance of said stowage aids in said compartment.

19. The computer program product of claim 15, wherein said determining includes estimating a total floor area required for accommodating a predetermined amount of said stowage aids of at least one selected type.

20. The computer program product of claim 19, wherein:

said information pertains to each of at least one type of said stowage aids;
each said compartment is characterized by a portion of said individual floor area that is unsuitable for situation thereupon of said stowage aids;

said different said capabilities are associated with the respective natures of the corresponding said portions; and

said unsuitability is associated with at least one of: accessibility to said stowage aids in said compartment; and functional clearance of said stowage aids in said compartment.